National Weather Service
Storm Data and Unusual Weather Phenomena

July 2002

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
LAKE MICHIGAN									
LMZ643	**Sheboygan To Pt Washington Wi**								
.5 E Sheboygan	**08**	**1700CST**			**0**	**0**			**Marine Tstm Wind (G46)**
LMZ643	**Sheboygan To Pt Washington Wi**								
.5 E Sheboygan	**08**	**1900CST**			**0**	**0**			**Marine Tstm Wind (G36)**
LMZ644	**Pt Washington To North Pt Lt Wi**								
3 E Mequon	**08**	**1950CST**			**0**	**0**			**Marine Tstm Wind (G52)**
LMZ644	**Pt Washington To North Pt Lt Wi**								
5 SE Mequon	**08**	**1952CST**			**0**	**0**			**Marine Tstm Wind (G52)**
A line of strong thunderstorms moved east-southeast out over Lake Michigan, producing powerful wind gusts									
LMZ643	**Sheboygan To Pt Washington Wi**								
Sheboygan	**30**	**2100CST**			**0**	**0**			**Marine Tstm Wind (G42)**
A line of severe thunderstorms along a cold front moved east across Lake Michigan, generating powerful wind gusts.									
WISCONSIN, Southeast									
WIZ046>047-051-056>060-062>072	**Marquette - Green Lake - Fond Du Lac - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Jefferson - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha**								
	01 **03**	**0600CST** **1800CST**			**0**	**0**			**Excessive Heat**
A heat wave, which started on June 30, 2002, continued through the first three days of July, 2002, across south-central and southeast Wisconsin. Maximum temperatures were in the lower to mid 90s and overnight lows in the upper 60s to mid 70s, both about 10 to 15 degrees above normal. A 62-year-old City of Milwaukee man died due to secondary heat-related stress (indirect death). No other deaths were reported, however, dozens of people received first-aid treatment at various community festivals. Heat index values were in the 95 to 104 range. Milwaukee Mitchell Field recorded a minimum of 75 on July 3rd, tying the old record set back in 1965 and 1921.								
WIZ046>047-051>052-056>060-062>072	**Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Jefferson - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha**								
	08	**1100CST** **2359CST**			**0**	**0**			**Excessive Heat**
A single-day heat wave affected a few counties in south-central and southeast Wisconsin, resulting in about a dozen people being treated for the affects of heat at local hospitals. Maximum temperatures were in the lower to mid 90s, and morning lows were in the lower 70s. Afternoon heat index values reached 105 to 108 for at least 3 hours in Rock, Walworth, Racine, and Kenosha counties, meeting the official threshold value for daytime heat indices which is 105 or higher for 3 hours or more. Elsewhere across south-central and southeast Wisconsin heat indices were in the 95 to 104 range. Southwest winds of 13 to 22 kts (15 to 25 mph) offered little relieve.								
Sheboygan County									
2.4 NE Beechwood	**08**	**1145CST**			**0**	**0**	**20K**		**Thunderstorm Wind (G61)**
Sheboygan County									
4.3 NE Oostburg	**08**	**1630CST**			**0**	**0**	**10K**		**Thunderstorm Wind (G61)**
Sheboygan County									
Sheboygan	**08**	**1800CST** **2100CST**			**0**	**0**			**Urban/Sml Stream Fld**
Rock County									
Janesville	**08**	**1845CST**			**0**	**0**			**Thunderstorm Wind (G52)**

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WISCONSIN, Southeast

Washington County

Hartford	**08**	**1913CST 1916CST**	**0**	**0**	**10K**		**Thunderstorm Wind (G56)**

Washington County

Jackson	**08**	**1923CST**	**0**	**0**	**10K**		**Thunderstorm Wind (G56)**

Washington County

Germantown	**08**	**1927CST**	**0**	**0**			**Thunderstorm Wind (G52)**

Fond Du Lac County

2.3 SW Fond Du Lac to 2 SE Fond Du Lac	**08**	**1930CST 2130CST**	**0**	**0**	**10K**		**Flash Flood**

Flash flooding closed some roads and washed out some gravel shoulders on the south side of the city of Fond du Lac. Rainfall amounts of 3 to 5 inches were noted, based on WSR-88D estimates and spotter reports. Water depths on US Hwy 41 between 151 and 175 reached 4 to 5 feet.

Ozaukee County

Thiensville to Mequon	**08**	**1940CST 1950CST**	**0**	**0**			**Thunderstorm Wind (G52)**

Milwaukee County

Brown Deer	**08**	**1942CST**	**0**	**0**			**Thunderstorm Wind (G56)**

Waukesha County

Pewaukee	**08**	**2200CST**	**0**	**0**			**Thunderstorm Wind (G52)** [M]

Kenosha County

Kenosha	**09**	**0000CST 0200CST**	**0**	**0**			**Urban/Sml Stream Fld**

A series of severe thunderstorms moved southeast through southeast Wisconsin wtih powerful winds that toppled trees and power lines, as well as damaging some structures. Damage to power lines resulted in the loss of electrical power to 12,000 customers in the Milwaukee area. Northwest of Beechwood (Sheboygan Co.), the winds destoyed one small metal shed, and rolled over a propane tank. Northeast of Ootsburg (Sheboygan Co.), the powerful winds toppled dozens of trees near Kohler/Andrea State Park, and damaged a couple homes. In Washington County, a car and boat in Hartford were damaged by toppled trees, and a shed near Jackson was blown down. Heavy rains associated with training thunderstorm cells created urban flooding in the city of Kenosha when .71 inches of rain fell in only 11 minutes (at the rate of 5.07 inches per hour). Likewise, urban flooding developed in the city of Sheboygan when 1.81 inches of rain fell in 70 minutes ending at 1910CST (...and 3.57 inches in past 5 hours). Synoptically, a mesoscale convective system moved southeast through Wisconsin overnight on the 7th and in the early morning hours of the 8th. The trailing edge of this system brushed Sheboygan county with isolated severe weather at mid-day. The outflow boundary left over from the MCS focused new thunderstorm development between Fond du Lac and Milwaukee as the low-level jet intensifed while a short-wave aloft moved through the area.

WIZ046>047-051-056>058-062>072

Marquette - Green Lake - Fond Du Lac - Sauk - Columbia - Dodge - Iowa - Dane - Jefferson - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha

	21	**0000CST 2359CST**	**0**	**0**			**Excessive Heat**

Excessive heat affected most of south-central and southeast Wisconsin on July 21st. This turned out to be the hottest day of the summer of 2002 for this area. Interestingly, no heat-related deaths were reported up to the initial time of the publication of this report. After overnight lows in the 70s, afternoon temperatures rose to the mid 90s to around 100, about 10 to 15 degrees above normal for the minimums, and 15 to 20 degrees above normal for the maximums. Afternoon heat indices generally peaked in the 105 to 110 range for several hours, but briefly hit 112 in Racine, Janesville, and Wisconsin Dells. Milwaukee Mitchell Field tied its daily high minimum of 78 degrees, set back in 1932. Locations to hit the century mark for maximum temperatures were: 101 in West Allis, and 100 at Mt. Mary College, both in Milwaukee County. Elsewhere, Delavan (Walworth Co.) and Richfield (Washington Co.) topped out at 100. Millwaukee Mitchell Field and Madison Truax Field peaked at 98.

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WISCONSIN, Southeast

Racine County

Raymond | **26** | **0100CST** | | | **0** | **0** | **3K** | **2K** | **Thunderstorm Wind (G56)**

WIZ066 **Milwaukee**

26 | **1000CST 1800CST** | | | **0** | **0** | | | **Excessive Heat**

An isolated severe thunderstorm pulsed up over Racine County, resulting in wind damage to some corn crop near Raymond, as well as some roof shingle damage to a few homes. In Milwaukee County, a 45-year-old male died from heat-related causes. The medical examiner indicated that heat was a secondary, or contributing cause of death (indirectly-related). This excessive heat heat event didn't meet the daytime heat index criteria, therefore it isn't an official excessive heat event. Maximum temperatures in Milwaukee County were only in the upper 80s to lower 90s, and heat indices were below 105

Waukesha County

Waukesha | **27** | **0000CST 0300CST** | | | **0** | **0** | | | **Urban/Sml Stream Fld**

Slow-moving thunderstorms over the city of Waukesha dumped 2.36 inches of rain from 2330CST on July 26th to 0110CST on July 27th, resulting in urban flooding. Water depths on some city streets reached 1 foot.

Iowa County

Cobb | **27** | **2147CST** | | | **0** | **0** | | | **Hail(0.75)**

Iowa County

Dodgeville | **27** | **2203CST** | | | **0** | **0** | | | **Thunderstorm Wind (G52)**

Iowa County

Hollandale to 4 ESE Hollandale | **27** | **2245CST 2255CST** | | | **0** | **0** | | | **Thunderstorm Wind (G56)**

Dane County

1 S Stoughton | **27** | **2250CST 2254CST** | | | **0** | **0** | | | **Thunderstorm Wind (G52)**

Rock County

Edgerton | **27** | **2315CST** | | | **0** | **0** | | | **Thunderstorm Wind (G52)**

Rock County

5 E Milton | **27** | **2320CST 2330CST** | | | **0** | **0** | **10K** | | **Thunderstorm Wind (G56)**

Scattered severe storms with large hail and damaging winds affected parts of south-central Wisconsin during the overnight hours. The storms were triggered by an old outflow boundary that pushed southeast from earlier convection in southeast Minnesota. Strong low-level warm-air advection fueled the storms, but fortunately, a cap prevented more widespread severe weather.

Iowa County

3 E Arena | **30** | **1943CST** | | | **0** | **0** | | | **Hail(0.75)**

Dane County

Black Earth | **30** | **1955CST** | | | **0** | **0** | | | **Thunderstorm Wind (G56)**

Fond Du Lac County

Ripon | **30** | **2000CST** | | | **0** | **0** | | | **Thunderstorm Wind (G52)**

Marquette County

3.6 NW Budsin | **30** | **2030CST** | | | **0** | **0** | | | **Thunderstorm Wind (G56)**

A line of thunderstorms, some severe, developed along a cold front moving east across Wisconsin. Isolated severe weather resulted in the form of large hail and damaging winds. The powerful winds toppled trees and felled tree branches snapped several power lines. Maximum temperatures were in the lower 90s with surface dewpoints around 70.